

PROJECT DESCRIPTION

I. GENERAL
This project is located at the intersection of MD 175 and Brock Bridge Road in Anne Arundel County, Maryland and involves the construction of a new fully operational traffic signal. MD 175 is assumed to run in an East/West direction.

II. INTERSECTION OPERATION
The proposed traffic signal will operate in a NEMA three (3) phase, fully traffic actuated mode. The MD 175 approaches will operate concurrently with the westbound left turns operating in an exclusive/permisive (E/P) phase. The Brock Bridge Road and Jessup Baptist Church approaches will operate concurrently.

A new eight phase fully traffic actuated controller with two (2) four channel rack mounted loop detector amplifiers, telemery module, intersection monitor with battery back up and two circuit flasher unit with relay package housed in a NEMA size six (6) base mounted cabinet will be placed.

III. SPECIAL NOTES
1. It is the responsibility of the contractor to confirm geometrics prior to placing signal equipment.

2. The signal shop will be notified to perform internal wiring of the cabinet at MD 175 @ Brock Bridge Road. All cable shall be identified and brought into the controller by the contractor. The contractor shall notify Mr. Edward Rodenhizer, SHA Signal Shop at (410) 787-7650 seventy-two (72) hours in advance of this work.

3. MOT Plates for this project will be as follows: 104.00 to 104.00-12, 104.02-01, 104.03-01.

4. Interconnect to Wigley Avenue NOT provided per Woody Hood (TDSD).

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR:

| ITEM NO. | QUANTITY | DESCRIPTION |
|----------|----------|--|
| 9000 | 1 EA | FURNISH SIZE 6 BASE MOUNTED CABINET AND CONTROLLER W/TELEMETRY, AUTOSCOPE DETECTION EQUIPMENT AND CAMERA |
| 9002 | 2 EA | FURNISH DETECTOR AMPLIFIER 4-CH RACK MOUNT |
| 9089 | 47 SF | FURNISH FLAT SHEET ALUM. SIGN-YELLOW, ORANGE & SILVER TO CONSIST OF: R10-12 (1) (30"x36") LEFT TURN YIELD ON GREEN SIGN-MAST ARM MOUNT W3-3 (3) (36"x36") NEW SIGNAL AHEAD R3-7(R) (2) (30"x30") RIGHT LANE MUST TURN RIGHT |
| 9090 | 10.7 SF | FURNISH FLAT SHEET ALUM. SIGN-BLUE OR GREEN TO CONSIST OF: D-3(I) (1) (16"x96") "Brock Bridge Road" SIGN DUAL FACED-MAST ARM MOUNT |

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR:

| ITEM NO. | QUANTITY | DESCRIPTION |
|----------|----------|---|
| 1001 | LS | MAINTENANCE OF TRAFFIC |
| 2001 | 5 CY | TEST PIT EXCAVATION |
| 5004 | 90 LF | FURNISH AND INSTALL 24" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE (STOP BAR) |
| 5001 | 2305 LF | FURNISH AND INSTALL 5-INCH YELLOW HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING |
| 5002 | 1550 LF | FURNISH AND INSTALL 5-INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING TAPE |
| 5007 | 1880 LF | REMOVE EXISTING PAVEMENT MARKINGS-ANY WIDTH |
| 6002 | 65 LF | STANDARD TYPE-A COMBINATION CURB AND GUTTER (12" GUTTER PAN 8" DEPTH) |
| 8003 | 1 EA | FURNISH AND INSTALL 12" X 14" GALVANIZED STEEL PEDESTAL POLE (INCLUDE 4" SCHEDULE 80 PVC ELBOW AND 4-2"x90" ANCHOR BOLTS) |
| 8001 | 7 CY | FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION |
| 8023 | 8 LF | FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT (DETECTOR WIRE SLEEVE) |
| 8022 | 30 LF | FURNISH AND INSTALL 1" ELECTRICAL CONDUIT (GALVANIZED SLEEVE) |
| 8016 | 2 EA | FURNISH AND INSTALL MICROLOOP PROBE SET W/500 FOOT LEAD-IN |
| 8030 | 50 LF | FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT-TRENCHED |
| 8032 | 120 LF | FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT-BORED |
| 8029 | 175 LF | FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT-BORED |
| 8027 | 520 LF | FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT-TRENCHED |
| 8028 | 100 LF | FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT-SLOTTED |
| 8033 | 8 EA | FURNISH AND INSTALL HANDHOLE |
| 8040 | 1270 LF | FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO.14 AWG) |
| 8021 | 440 LF | FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR) |
| 8048 | 60 LF | FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO.6 AWG) |
| 8041 | 275 LF | FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUMINUM SHIELDED) |
| 8043 | 150 LF | FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR (NO.14 AWG) |
| 8044 | 650 LF | FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO.14 AWG) |
| 8045 | 130 LF | FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO.14 AWG) |
| 8084 | 26 EA | FURNISH AND INSTALL 12" VEHICULAR TRAFFIC SIGNAL HEAD SECTION PAINTED BLACK |
| 8051 | 75 LF | FURNISH AND INSTALL WOOD SIGN SUPPORT 4" x 6" |
| 8052 | 39.5 SF | INSTALL GROUND MOUNTED SIGNS |
| 8053 | 18.2 SF | INSTALL OVERHEAD SIGNS |
| 8079 | 1 EA | FURNISH AND INSTALL MAST ARM POLE AND 70' MAST ARM (INCLUDE 4" SCHEDULE 80 PVC ELBOW AND 4-2"x90" ANCHOR BOLTS) |
| 8006 | 1 EA | CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE |
| 8020 | 1 EA | INSTALL CONTROLLER AND CABINET- BASE MOUNT |
| 8034 | 3 EA | FURNISH AND INSTALL GROUND ROD-3/4" DIA. X 10' LENGTH |
| 8066 | 1 EA | FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V,1PH,3W) |
| 8060 | 1 EA | REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT |

THE FOLLOWING CONTACT PERSONS FOR DISTRICT # 5 ARE AS FOLLOWS:

Mr. Edward Meehan
District Engineer
Phone: (410) 841-5450

Mr. Lawrence E. Elliott
Assistant District Engineer-Traffic
Phone: (410) 841-5450

Mr. William Davitt
Assistant District Engineer-Utility
Phone: (410) 841-5450

Mr. Richard L. Daff
Chief Traffic Operations Division
Phone: (410) 787-7630

The Power Company Representative is:

BALTIMORE GAS AND ELECTRIC COMPANY
Mr. Ben Ward
Southern Distribution
7317 Parkway Drive
Hanover, Maryland 21076

The Phone Company Representative is:

BELL ATLANTIC
Mr. Ron Pusloskie
Phone: (410) 224-9245

The Cable Company Representative is:

COMCAST CABLE COMMUNICATIONS, INC.
MR. Paul Heying
Construction Coordinator
Phone: (410) 268-1758 Ext. 656

WIRING DIAGRAM

WIRING KEY

A,B PROBE CABLE

C,D,E 2 CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14) AWG

F 3 CONDUCTOR ELECTRICAL CABLE (NO. 14) AWG

G,H,I,J,K,L,M 5 CONDUCTOR ELECTRICAL CABLE (NO. 14) AWG

N 7 CONDUCTOR ELECTRICAL CABLE (NO. 14) AWG

O STRAND BARE COPPER GROUND WIRE (NO. 6) AWG

PRO PROBES

PS POWER SOURCE

LW LOOP WIRE

x GROUND ROD

— AUTOSCOPE CAMERA

PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------|------|------|------|------|------|------|------|------|
| PHASE 2 & 5 | R | R | G | G | R | R | R | R |
| PHASE 5 CHANGE | R | R | G | G | R | R | R | R |
| PHASE 2 & 6 | G | G | G | G | R | R | R | R |
| PHASE 2 & 6 CHANGE | Y | Y | Y | Y | R | R | R | R |
| PHASE 4 & 8 | R | R | R | R | G | G | G | G |
| PHASE 4 & 8 CHANGE | R | R | R | R | Y | Y | Y | Y |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R |

PHASING NOTES :

- PHASE 2 WILL ALWAYS BE WITH PHASE 5 NEVER ALONE

- PHASE 6 WILL ALWAYS BE WITH PHASE 2 NEVER ALONE

- PHASE 4 WILL ALWAYS BE WITH PHASE 8 NEVER ALONE

DATE: 16-Aug-00 19:16

JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future
72 Loveston Circle Baltimore, Maryland 21152-0949

REVISIONS

APPROVALS

TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION

ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 175 AT BROCK BRIDGE ROAD
GENERAL INFORMATION LOG MILE: 06003201.33

DRAWN BY: D. URBANEK

CHECKED BY: M. WOLNIAK

SCALE: NTS

DATE: 22 AUGUST 2000

F.A.P. NO.

S.H.A. NO. AAG63ASSISS8

COUNTY: ANNE ARUNDEL

LOG MILE: 8.91

TS NO.

T.I.M.S. NO.

SHEET NO. 2 OF 3